

2015-1829, -1879

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**United States Court of Appeals  
for the Federal Circuit**

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B.E. TECHNOLOGY, LLC,

*Plaintiff – Appellant,*

v.

FACEBOOK, INC., GOOGLE, INC., MATCH.COM LLC, PEOPLE MEDIA, INC.,

*Defendants – Appellees.*

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*Appeals from the United States Patent and Trademark Office Before the  
Patent Trial and Appeal Board IPR2014-00052, IPR2014-00053,  
IPR2014-00698, IPR2014-00743, IPR2014-00744.*

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**RESPONSIVE BRIEF FOR APPELLEES FACEBOOK, INC. AND GOOGLE INC.**

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**UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT**

**B.E. Technology L.L.C. v. Facebook, Inc., Google, Inc., Match.com LLC, and  
People Media, Inc.,**

**No. 2015-1829, -1879**

**FACEBOOK, INC.'S CERTIFICATE OF INTEREST**

Pursuant to Federal Circuit Rules 27(a)(77) and 47.4(a), counsel for Appellee Facebook, Inc. hereby certifies the following:

**1. The full name of every party or amicus represented by me is:**

Facebook, Inc.

**2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by us is:**

N/A

**3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by us are:**

No publicly-held corporation owns 10% or more of Facebook, Inc. stock.

**4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by us in the trial court or agency or are expected to appear in this court are:**

Cooley LLP; Heidi L. Keefe, Mark R. Weinstein, Orion Armon, Peter J. Sauer, Janna K. Fischer, Sara Bradford.

December 9, 2015

/s/ Orion Armon

**CERTIFICATE OF INTEREST**

Pursuant to Federal Circuit Rule 47.4, Andrew J. Pincus, certifies the following:

1. The full name of the party represented by me is:

Google Inc.

2. The name of the real party-in-interest (if the party named in the caption is not the real party-in-interest) represented by me is:

N/a.

3. All parent corporations or any publicly held corporations that own 10% or more of the stock of appellee:

Google Inc. is a wholly owned subsidiary of Alphabet Inc., a publicly traded company (NASDAQ: GOOG, GOOGL). No publicly held company owns 10% or more of Alphabet Inc.'s stock.

4. The names of all law firms and the partners or associates that appeared for the party now represented by me in this proceeding are:

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December 8, 2015

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**STATEMENT OF RELATED CASES**

In accordance with Federal Circuit Rule 47.5, counsel for Appellee Facebook, Inc., states:

Other than the judicial proceedings identified in B.E's brief, Facebook is not aware of any judicial proceedings that may affect, or be affected by, a decision in this matter.

## INTRODUCTION

The six claims of U.S. Patent No. 6,628,314 (the “ ’314 patent”) at issue in this appeal cover the computerized selection and delivery of demographically targeted advertisements. The alleged novelty of the claims was applying well-known targeted advertising methods to the Internet. The Board correctly held the claims to be invalid in light of both combinations of prior art that were instituted in Facebook’s two petitions for *inter partes* review. The Court should affirm the final written decision invalidating the appealed claims because none of the four issues B.E. raises on appeal has merit.

B.E. first appeals the Board’s holding that the combined teachings of U.S. Patent No. 5,809,242 to Shaw (“Shaw”) and a publication titled “Privacy and Profiling on the Web” (“W3C”) render the appealed claims obvious. B.E. objects to the Board’s finding that Shaw discloses the sole contested limitation in the appealed claims, “providing a unique ID,” but the Court need not reach this argument. Facebook argued, and the Board found, that the teachings of W3C disclose the “providing a unique ID” limitation. B.E. did not dispute W3C’s disclosure of the limitation. As a result, the Board’s holding of obviousness over the teachings of Shaw and W3C is supported by substantial evidence regardless whether Shaw discloses the “providing a unique ID” limitation. B.E. also appeals the Board’s finding that it would have been obvious to combine the teachings of

Shaw and W3C. The Board's findings on the combinability of the prior art are also supported by substantial evidence and should be affirmed.

Second, B.E. appeals the Board's holding that the appealed claims are obvious over the combined teachings of U.S. Patent No. 5,933,811 to Angles ("Angles") and Shaw. The only disputed issue is whether one of ordinary skill in the art would have found it obvious to combine the teachings of Angles and Shaw. The Board's holding that it would have been obvious to combine Angles and Shaw is based on substantial evidence and should be affirmed.

Third, B.E. argues that the Board abused its discretion in denying its contingent motion to amend claim 11. The Board's denial of the motion to amend should be affirmed because B.E. failed to prove the patentability of amended claim 11. B.E. did not address how the new claim term "real-time" from the "selecting" limitation should be construed and failed to identify how the original patent disclosure provided written description support for the amended claim. Furthermore, B.E.'s amendments would not have yielded patentable claims. Proposed amended claim 11 is (1) obvious in light of the prior art, (2) not patent eligible under 35 U.S.C. § 101, and (3) indefinite under 35 U.S.C. § 112(b).

Fourth, B.E. appeals the Board's application of the "broadest reasonable interpretation" claim construction standard. B.E. waived the claim construction issue by failing to propose constructions for disputed terms under the *Phillips*

standard or to explain why the outcome of the IPRs would change if a different claim construction standard applied. Having waived these arguments, B.E. cannot obtain a different result on remand even if the Supreme Court changes the standard for claim construction in IPR proceedings.

#### **THE PRIOR ART AT ISSUE**

The Board's final written decision found all appealed claims invalid as obvious in light of: (1) Shaw combined with the teachings of W3C, and (2) Angles combined with the teachings of Shaw. The prior art status of these references is undisputed.

1. "Shaw" is U.S. Patent No. 5,809,242, titled "Electronic Mail System for Displaying Advertisements at Local Computer Received from Remote System While the Local Computer Is Off-Line the Remote System." (A0143-74.)

2. "W3C" is a publication titled "Privacy and Profiling on the Web" that was submitted by Microsoft to the World Wide Web Consortium. (A0178-90.)

3. "Angles" is U.S. Patent No. 5,933,811, titled "System and Method for Delivering Customized Advertisements within Interactive Communication Systems." (A1683-1708.)

#### **STATEMENT OF THE ISSUES**

1. Was the Board's holding that claims 11, 12, 13, 15, 18, and 20 of the '314 patent are obvious in light of the teachings of Shaw and W3C supported by

substantial evidence where it found persuasive evidence submitted by Facebook and where B.E. relied on an expert declaration with no evidentiary support and conclusory analysis?

2. Was the Board's holding that claims 11, 12, 13, 15, 18, and 20 of the '314 patent are obvious in light of the teachings of Angles and Shaw supported by substantial evidence where it found persuasive evidence submitted by Facebook and where B.E. relied on an expert declaration with no evidentiary support and conclusory analysis?

3. Did the Board properly deny B.E.'s contingent motion to amend after B.E. failed to address claim construction or to explain how the original written description of the '314 patent provides support for the proposed amended claims?

4. Is B.E.'s appeal of the claim construction standard applied by the Board irrelevant in light of its waivers below?

#### **STATEMENT OF THE CASE**

In 2012, B.E. sued Facebook and seventeen other defendants for infringing claims 11, 12, 13, 15, 18 and 20 of the '314 patent in the Western District of Tennessee. C.A. No. 2:12-cv-02769-JPM-tmp.

In September 2013, Facebook filed two IPR petitions against the asserted claims of the '314 patent, which are the same claims now on appeal. (A0044-101; A1577-1641.) Google and Microsoft each filed one petition as well. *Microsoft*



*Corp. v. B.E. Tech., L.L.C.*, No. IPR2014-00039 (PTAB Oct. 9, 2013) (Paper 1); *Google Inc. v. B.E. Tech, L.L.C.*, No. IPR2014-00038 (PTAB Oct. 8, 2013) (Paper 1). Facebook's petitions were supported by the Expert Declarations of Robert J. Sherwood, an advertising industry veteran with more than 40 years of experience. Mr. Sherwood used demographically targeted advertising techniques in Internet advertising campaigns prior to the earliest priority date of the '314 patent. (A0298-301.) B.E. and the defendants agreed to stay the district court litigation until the IPR proceedings concluded.

In April 2014, the Board instituted each of the four petitions for *inter partes* review of the '314 patent, including the two Facebook petitions underlying this appeal. (A2409; A0970; *Microsoft*, No. IPR2014-00039 (PTAB April 9, 2014) (Paper 13); *Google*, No. IPR2014-00038 (PTAB April 9, 2014) (Paper 9). In response to Facebook's petitions, the Board instituted *inter partes* review on (1) Shaw and W3C, and (2) Angles and Shaw. (A2409; A0970.) Google's and Microsoft's petitions were instituted on different prior art references. *Microsoft*, No. IPR2014-00039, Paper 13 at 19-20; *Google*, No. IPR2014-00038, Paper 9 at 18.

B.E. filed a patent owner response in each *inter partes* review in July 2014 (A0973-87; A2496-2515) and Facebook filed replies to B.E.'s responses in September 2014. (A1361-78; A2808-25.) B.E. filed a contingent motion to amend

claim 11 of the '314 patent (A1277-94) which Facebook opposed. (A1401-18.) Facebook submitted a Second Expert Declaration from Mr. Sherwood along with its opposition to B.E.'s motion to amend. (A2888-2909.)

In March 2015, the Board issued a final written decision holding every challenged claim obvious over two distinct combinations of art: (1) Shaw and W3C; and (2) Angles and Shaw, and denied B.E.'s contingent motion to amend. (A0028-A0030.)

#### **STATEMENT OF FACTS**

**1. B.E. does not dispute that the prior art presented by Facebook discloses every limitation of the appealed claims**

Claims 11, 12, 13, 15, 18 and 20 of the '314 patent cover methods for providing demographically targeted advertising to computer users. (A0102, A0127-28 at claim 11.) Figure 5 shows the client software of claim 11 that displays advertisements on the user's computer. (A0107.) Advertisements are selected and sent from a server to the user's computer based on the user's demographic information. (A0127 at 22:65-67.)

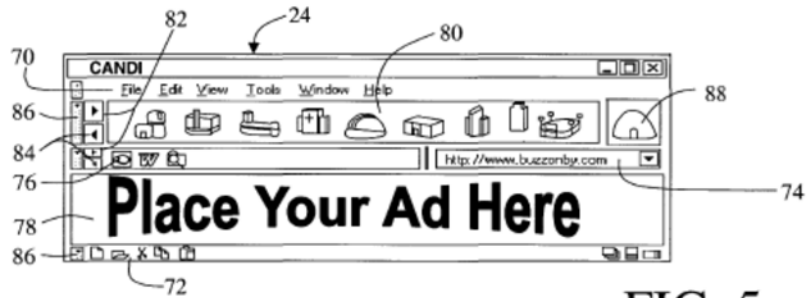


FIG. 5

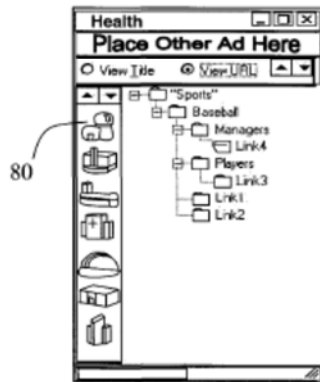


FIG. 5a

It was well-known long before the earliest priority date of the '314 patent that it was desirable to target advertisements based on consumers' demographic information. (A0307-08 at ¶ 20.) In 1995, three years before the priority date of the '314 patent, advertisers began targeting advertisements to viewers of Internet sites using data contained in user profiles. (*Id.*) The '314 specification acknowledges that demographically targeted advertising delivered via the Internet was well known before the '314 patent was filed. (A0117-18 at 2:49 – 3:32 (describing prior art systems).)

Claim 11 of the '314 patent is the only independent claim at issue in this appeal. Claim 11 has eleven limitations. Before the Board, B.E. did not dispute that: (1) Shaw discloses ten of eleven limitations of claim 11—all but the

“providing a unique ID” limitation, (2) W3C teaches the disputed “providing a unique ID” limitation, and (3) the teachings of Angles and Shaw disclose every limitation of claim 11. Claim 11 is shown below. The disputed “providing a unique ID” limitation is in **bold**:

11. A method of providing demographically-targeted advertising to a computer user, comprising the steps of:

providing a server that is accessible via a computer network,

permitting a computer user to access said server via said computer network,

acquiring demographic information about the user, said demographic information including information specifically provided by the user in response to a request for said demographic information,

providing the user with download access to computer software that, when run on a computer, displays advertising content, records computer usage information concerning the user’s utilization of the computer, and periodically requests additional advertising content,

transferring a copy of said software to the computer in response to a download request by the user,

**providing a unique identifier to the computer, wherein said identifier uniquely identifies information sent over said computer network from the computer to said server,**

associating said unique identifier with demographic information in a database,

selecting advertising content for transfer to the computer in accordance with the demographic information associated with said unique identifier;

transferring said advertising content from said server to the computer for display by said program,

periodically acquiring said unique identifier and said computer usage information recorded by said software from the computer via said computer network, and

associating said computer usage information with said demographic information using said unique identifier.

(A0127-28.)

B.E. does not dispute that the prior art disclosed each limitation recited in the five dependent claims at issue in this appeal. (A0012, A0020; B.E. Br. at 18-39 (nowhere challenging that the limitations of the dependent claims are met by the prior art presented by Facebook).)

**2. Shaw describes an email system that delivers targeted advertising over a network**

Shaw discloses an e-mail communications system that displays targeted advertisements. Shaw contemplates targeting ads to a user who is either on-line or off-line. (A0157 at 1:8-11; A0168 at 23:64-67.)

Like the '314 patent, Shaw's advertising system includes software downloaded to the user's computer that periodically acquires advertisements from a server, records the user's response to the advertisements, and tracks usage of the software. (A0158 at 3:35-36; A0159 at 5:19-30, 6:21-40.) Shaw's Figure 8, like '314 patent Figure 5, shows how ads 800 are served to a computer user using client software:

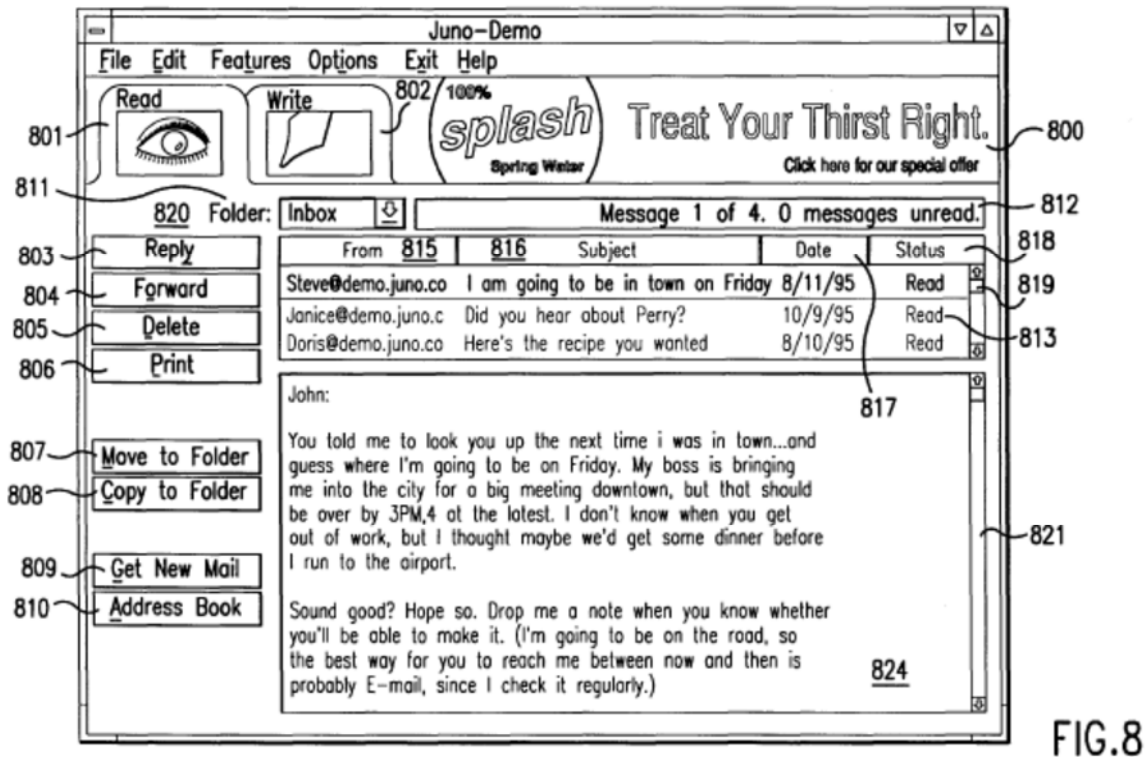


FIG. 8

Shaw's preferred embodiment is a dial-up email system, but Shaw expressly contemplates providing advertisements to users in other contexts, such as in web pages. (A168 at 23:64-24:4. ("[T]he present invention could be adapted to output a series of advertisements to users in a system that allowed downloading a number of web pages for off-line browsing."))

Facebook argued and the Board found that Shaw discloses every limitation of the challenged '314 patent claims. (A0012-14.) On appeal, B.E. only disputes whether Shaw discloses the "providing a unique ID" limitation in claim 11: "providing a unique identifier to the computer, wherein said identifier uniquely identifies information sent over said computer network from the computer to the

server.” (B.E. Br. at 18-22.) B.E.’s argument is based on a claim construction dispute and is addressed in more detail below.

The functionality that Shaw discloses is not disputed by the parties. Shaw teaches using a unique user ID—an e-mail address—to identify a user and associate the user with a user profile. (B.E. Br. at 18.) Shaw describes passing the unique user ID from the user’s computer over a network along with computer usage information: “[a]mong the other connection parameters passed from the client computer 101 to the communication interface 102 is the user name and binding information (e.g., the network login).” (A0165 at 18:39-42; *see also* A0165 at 18:46-56 (“[t]he client system 101 transmits the user’s name and the hash value back to the mail server.”); A0157 at 1:45-50; A0162 at 12:6-13; A0065-67.) The Board found that Shaw’s e-mail address disclosed the “providing a unique identifier” limitation. (A0014.)

**3. The W3C publication submitted by Microsoft proposed adoption of user IDs linked to rich user profiles to enhance targeting of content**

Employees of Microsoft submitted the W3C publication to the World Wide Web Consortium to propose the adoption of a standard for profiles of Internet users that would facilitate targeted advertising. (A0178.) For example, as shown in the below W3C figure, the user’s profile included demographic information and was associated with a unique “UserID.”

Category	Column
Personal Contact	UserID
	Email
	Certificate
	Common Name*
	Given Name
	Last Name
	Middle Name
	Address1
	Address2
	City
	State/Province
	Postal Code
	Locality
	Country
	Language Spoken*
Demographic	Telephone
	Mobile Phone
	Birthday
	Gender*
	Level of education*
	Marital Status*
	Number of children*
	Income Level*

(A0182-83 (annotations added).) W3C also contemplated including computer usage information in a user's profile. W3C called this information "click-stream" data which recorded the user's "actual navigational/behavioral data." (A0181-83 at §§ 1.4, 2.2.)

The teachings of W3C were presented by Facebook in combination with Shaw to prove the obviousness of the "providing a unique ID" claim element. (A0065-67.) Instead of using an e-mail address like Shaw, W3C securely assigns a unique User ID using the UUIgen algorithm or an X.509 certificate. The unique identifier is hashed to create a "persona ID" that can be used to identify profile information from a user and as a user login for user identification. (A0184-85 at §§2.3.1, 3.3.2.)



Before the Board, B.E. did not contest that W3C discloses the “providing a unique ID” limitation of claim 11. Facebook demonstrated and the Board agreed that W3C discloses this limitation. (A0012-17.)

**A. Facebook’s and B.E.’s evidence regarding motivation to combine Shaw and the teachings of W3C**

Facebook submitted a declaration from its expert Mr. Sherwood and other evidence to prove that a person of ordinary skill in the art would have been motivated to combine Shaw and W3C. (A0320-A0322 at ¶¶ 53-56; A1399.) Mr. Sherwood’s opinion is set forth in a 28-page declaration. Mr. Sherwood cited more than a dozen references and publications from the relevant time period to support his opinions that: (1) applying W3C’s teachings to Shaw’s system would ensure future interoperability with other targeted advertising systems, (2) the W3C proposal was submitted by Microsoft so it would have been viewed as an indicator of best practices in targeted advertising, (3) the methods disclosed in Shaw and W3C were known, interchangeable alternatives for uniquely identifying information exchanged between computers concerning a user, and (4) combining the teachings of W3C with Shaw would have resulted in an improved system by including more information in the user profile, such as clickstream data, that would have enabled more effective targeting of advertisements. (A0067-68, A0071, A0074, A0079-80; A0320-A0322 at ¶¶ 53-56.) Facebook also submitted additional evidence showing that the technology disclosed by W3C was used in a platform

that received “broad industry support” prior to the application of the ’314 patent. (A1399.)

In response to Facebook’s evidence of the obviousness of combining the teachings of Shaw and W3C, B.E. offered the Declaration of Neil Goldstein. The nine-page Goldstein Declaration addresses the combinability of Shaw and W3C in two conclusory paragraphs. The opinions expressed in those paragraphs were not supported by record evidence or reasoned analysis. (A0016-17; A0983; A0996.)

In its final written decision, the Board found that it would have been obvious to a person of ordinary skill in the art to combine Shaw and W3C and that B.E. did not offer any persuasive evidence to rebut Facebook’s proof of the combinability of the references. (A0016-17.)

**4. Angles discloses an on-line advertising system that targets advertisements to users based on their demographic profile and records on-line behavior**

Angles discloses “an on-line advertising service which can custom tailor specific advertisements to particular consumers and track consumer responses to the advertisements.” (A1696 at 2:46-49.) Angles’ advertising system includes an advertisement provider’s computer that (a) transmits customized advertisements to a consumer’s computer over the Internet based on that consumer’s stored demographic information, and (b) monitors the consumer response and activity related to that advertisement. (A1696-97 at 2:59-3:17.)

Facebook's second IPR petition was instituted on the combined teachings of Angles and Shaw. (A2409.) B.E. did not dispute that the teachings of Angles and Shaw disclose all of the limitations of the appealed claims. B.E. only argued that it would not have been obvious to a person of ordinary skill in the art to combine the teachings of Angles and Shaw. (A0020.)

**A. Facebook and B.E.'s evidence regarding motivation to combine Angles with the teachings of Shaw**

Facebook relied on a declaration from Mr. Sherwood, its expert and an advertising industry veteran, to show that a person of ordinary skill in the art would have been motivated to combine the teachings of Angles and Shaw. Mr. Sherwood explains that combining the teachings of Shaw with Angles would result in an improved system that was faster and less expensive to operate. (A1778-81 at ¶¶ 64-67.) Mr. Sherwood's opinions are set forth in detail in his 31-page declaration, which contains citations to more than a dozen pieces of documentary evidence. (A1622-36, A1774-81 at ¶¶ 54-69.) B.E.'s opposition attacked the obviousness of combining the teachings of Angles and Shaw and was again based on assertions by Mr. Goldstein unsupported by record evidence or reasoned analysis. (A2505-11, A2525-27.) Mr. Goldstein opined that a person of ordinary skill in the art would not have combined Angles and Shaw because Angles "discloses no problem to solve, and [there was] no reason to change or complicate the Angles system" but he provided no substantive explanation or evidence to support these opinions.

(A2525-27.) B.E. also characterized Shaw as an “off-line batch e-mail system” and Angles as an “on-line system” to argue that Shaw and Angles allegedly were not analogous art. (B.E. Br. at 10.) But Shaw expressly discloses that its teachings can be used in on-line systems other than e-mail systems. (A0168 at 23:64-67.) And Angles expressly discloses use with dial-up, i.e. non-continuous connections such as “American [sic] On-line, the Microsoft Network, Prodigy, Compuserve, and Network Intensive.” (A1700 at 9:39-41; *see also* A1701 at 11:50-12:11 (describing local storage that could be used to store ads allowing for faster retrieval over slow network connections).)

In its final written decision, the Board found that it would have been obvious to combine the teachings of Angles and Shaw and that B.E. did not produce any persuasive evidence to rebut Facebook’s proof of a motivation to combine the prior art. (A0020-23.)

**5. The Board denied B.E.’s motion to amend because B.E. failed to meet its burden to show the proposed claims were patentable**

The Board denied B.E.’s contingent motion to amend. It found that B.E. did not carry its burden to show patentability because it failed to address how the newly added claim term “real-time” from the “selecting” limitation should be construed in the proposed amended claims. (A0026-28.) And the Board found that B.E. did not adequately show written description support for its substitute claims. (A0027-28.) The Board found that B.E.’s string citation to the “as-filed version” of

the '314 patent application did not provide sufficient support for its proposed amended claim. (*Id.*)

The Board did not find it necessary to reach them, but Facebook's opposition to B.E.'s motion to amend included argument and evidence showing that B.E.'s proposed amendments would be futile because the amended claims are (1) obvious, (2) not patentable under 35 U.S.C. § 101, and (3) indefinite under 35 U.S.C. § 112(b). (A1401-18.)

#### **SUMMARY OF THE ARGUMENT**

1. The Board correctly held that claims 11, 12, 13, 15, 18, and 20 of the '314 patent are obvious in light of Shaw and W3C and its final written decision should be affirmed for the following reasons:

i. B.E. appeals the Board's finding that Shaw discloses claim 11's "providing a unique ID" limitation, but its appeal of this issue need not be considered. The Board found that W3C discloses the "unique ID" limitation, which B.E. did not challenge below, so the Court should affirm the Board's holding of obviousness over Shaw and W3C regardless whether Shaw discloses "providing a unique ID".

ii. Substantial evidence supports the Board's finding that the email address disclosed by Shaw "uniquely identifies information sent over a computer network from the computer to the server" because Shaw expressly teaches that: (1)

“On first time use, the client program passes to the server system 104 the selected user name and password”; (2) “[a]mong the other connection parameters passed from the client computer 101 to the communication interface 102 is the user name and binding information (e.g., the network login)”; and (3) “[t]he client system 101 transmits the user’s name and the hash value back to the mail server.” (A0162 at 12:6-13, A0165 at 18:39-42, 18:46-56; A0065-67.)

iii. Substantial evidence supports the Board’s finding that it would have been obvious to a person of ordinary skill in the art to combine the teachings of Shaw and W3C. The record demonstrates that: (1) following W3C’s teachings would ensure future interoperability with other targeted advertising systems, (2) W3C was submitted by Microsoft and received broad industry support, (3) the methods disclosed in Shaw and W3C were known, interchangeable alternatives for identifying a unique user, and (4) combining W3C with Shaw resulted in an improved system by including more information in the user profile disclosed in Shaw (such as clickstream data), enabling more effective targeting of advertisements. (A0067-68, A0071, A0074, A0079-80; A0320-A0322 at ¶¶ 53-56; A1399.)

2. The Board correctly held claims 11, 12, 13, 15, 18, and 20 of the ’314 patent obvious in light of the teachings of Angles and Shaw.

i. B.E. does not dispute that the combination of Angles and Shaw discloses each limitation of claims 11, 12, 13, 15, 18, and 20 of the '314 patent.

ii. Substantial evidence supports the Board's finding that it would have been obvious to a person of ordinary skill in the art to combine the teachings of Angles and Shaw because the record shows that the combined system would benefit computer users through reduced cost (A1626 (quoting Shaw, A0158 at 4:60-66 and A0168 at 23:56-59); 1778-81 at ¶¶ 63-69) and increased speed. (A1626-27; A2820-21; A1767 at ¶¶ 33-34, A1779-80 at ¶¶ 65-66.)

3. The Board was within its discretion to deny B.E.'s motion to amend because, in violation of the Board's rules, B.E. omitted to address how the new claim term "real-time" should be construed. B.E. also failed to show how the original patent disclosure provided written description support for "selecting advertising content for transfer to the computer in accordance with real-time and other computer usage information." The original disclosure only describes "real-time" targeting of advertisements in general terms and nowhere describes the limitation B.E. sought to add: "selecting advertising content for transfer to the computer in accordance with real-time and other computer usage information and demographic information associated with said unique identifier." (A1295 at 21-22, A1300 at 6-7, A1305 at 10-13, and A1323 at 11-28.) Additionally, the Court may affirm the Board's decision on the other grounds advanced by Facebook that the

Board found it did not need to reach, including that B.E.’s amended claims: (1) are obvious in light of the prior art combinations presented by Facebook, (2) fail to claim patent-eligible subject matter under 35 U.S.C. § 101, and (3) are indefinite under 35 U.S.C. § 112(b). (A1401-18.)

4. B.E. waived any argument regarding the standard for claim construction because: (1) B.E. did not propose constructions for any disputed claim term under the *Phillips* standard, and (2) B.E. did not show why its proposed claims would be patentable if the Board applied the *Phillips* claim construction standard. Having waived these issues, the Court need not reach B.E.’s fourth issue on appeal.

#### ARGUMENT

**I. The Court should affirm the Board’s final decision finding that claims 11, 12, 13, 15, 18, and 20 are obvious in light of Shaw and W3C**

B.E. appeals the Board’s finding of obviousness over Shaw and W3C on two grounds: (1) Shaw’s alleged lack of disclosure of the “providing a unique ID” limitation, and (2) the alleged non-obviousness of combining the teachings of Shaw and W3C. This Court should affirm the Board’s decision for three reasons:

First, the Court need not reach B.E.’s evidentiary challenge concerning Shaw’s disclosure of a unique identifier. As B.E. acknowledges, Facebook proposed, and the Board found, that **W3C**’s teaching of a unique identifier satisfied claim 11’s “providing a unique ID” limitation. (B.E. Br. at 22; A0016.)



B.E. did not contest below that W3C discloses “providing a unique ID”, so it cannot challenge that W3C satisfies the “providing a unique ID” limitation on appeal. Substantial evidence therefore supports the Board’s holding of obviousness over Shaw and W3C regardless of whether Shaw discloses the disputed limitation.

Second, B.E.’s challenge to Shaw’s disclosure is based on a distorted reading of the “providing a unique ID” limitation. The “providing a unique ID” limitation requires that the unique identifier “uniquely identif[y] information sent over a computer network.” B.E. misinterprets the limitation to require that the unique identifier identify information sent by the computer, but its interpretation fails to give effect to all of the words of the claim. When claim 11 is properly construed, Shaw expressly discloses the “providing a unique ID” limitation.

Third, substantial evidence shows that it would have been obvious to combine the teachings of Shaw and W3C. Applying the teachings of W3C to Shaw’s system would ensure future interoperability with other targeted advertising systems; the W3C proposal was submitted by Microsoft, an industry leader, and was met with broad industry support; the methods disclosed in Shaw and W3C were known, interchangeable alternatives for identifying a unique user; and combining W3C with Shaw resulted in an improved system by including more information in the user profile disclosed in Shaw such as clickstream data, enabling more effective targeting of advertisements. (A0067-68, A0071, A0074, A0079-80; A0320-A0322 at ¶¶ 53-56; A1398-1400.)

The Board's holding that the appealed claims are obvious in light of the combined teachings of Shaw and W3C is legally correct and based on factual findings supported by substantial evidence.

**A. B.E. did not dispute below that W3C meets the “providing a unique ID” limitation, so the Court need not decide whether Shaw discloses it**

B.E.'s argument that Shaw's disclosure does not satisfy the “providing a unique ID” limitation of claim 11 is irrelevant because the invalidity ground instituted by the Board relied on W3C to satisfy the limitation. (A0016-17 (relying on the combination of Shaw and W3C to show the unique user ID).) Facebook demonstrated that the “providing a unique ID” limitation is taught in both Shaw and W3C to strengthen its evidence of obviousness and the combinability of Shaw's teachings with W3C's. (A0067-68.) The presence or absence of the “unique identifier” limitation in Shaw is not a basis for reversal because Facebook's petition and the Board's final written decision were based on the combination of “the unique identifier of **W3C** with Shaw.” (A0012 (emphasis added).) Hence, the Court need not decide whether substantial evidence supports the Board's finding that Shaw independently satisfies the limitation. Also, because B.E. did not challenge in the IPR proceedings Facebook's showing that W3C meets this limitation, B.E. waived the argument that the combined teachings of Shaw and W3C do not meet the disputed limitation of claim 11. *In re Baxter Int'l*,

*Inc.*, 678 F.3d 1357, 1362 (Fed. Cir. 2012) (arguments not presented to the Board are generally waived and not considered if raised on appeal). B.E. now makes conclusory assertions in its opening brief that W3C does not satisfy the “providing a unique ID” limitation. (B.E. Br. at 19, 24.) But those assertions are not supported by reasoned analysis or evidence and are therefore entitled to no weight. *In re Wright*, 999 F.2d 1557, 1563 (Fed. Cir. 1993) (giving no weight to conclusory arguments unsupported by evidence).

The only issue for this Court to address concerning the validity of the appealed claims in light of the teachings of Shaw and W3C is whether it would have been obvious to combine the teachings of the references.

**B. Substantial evidence supports the board’s findings that every limitation of the challenged claims is met by Shaw and W3C**

If the Court decides to reach the issue whether Shaw discloses the “providing a unique ID” limitation (it need not), there are two sub-issues: (1) whether the Board applied the proper construction of the “providing a unique ID” limitation, and (2) whether substantial evidence shows that Shaw discloses the properly construed limitation.

The Board’s interpretation of claim 11 is reviewed de novo, and underlying findings of fact are reviewed for substantial evidence. *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1297 (Fed. Cir. 2015). As further explained below, (1) the plain meaning of claim 11, (2) the ’314 patent specification, and (3)

the doctrine of claim differentiation support the Board's interpretation of the "providing a unique ID" limitation.

- 1. The Board's interpretation of claim 11 is correct and Shaw meets the Board's interpretation of the "providing a unique ID" limitation**
  - a. The plain language of claim 11 requires that the unique ID only identify "information" and not the "computer" as B.E. argues**

The most important evidence of the meaning of the claims is the language of the claims themselves. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005). Based on the plain meaning of the claim language, the Board found that in the "providing a unique ID" limitation of claim 11, "uniquely identifies" modifies "information," so any unique identifier—including a user ID—that uniquely identifies information sent over "said computer network" meets the disputed limitation. (A0014.) The Board's interpretation reflects the plain and ordinary meaning of the relevant language from claim 11, which reads: "providing a unique identifier to the computer, wherein said identifier uniquely identifies information sent over said computer network from the computer to the server." (A127, at claim 11.)

B.E. argues that a user ID cannot satisfy the "providing a unique identifier" limitation and contends that claim 11 requires a unique identifier that uniquely identifies information by the computer it was sent from. (B.E. Br. at 19.) B.E.'s

interpretation is incorrect and mistakenly relies on an incomplete quotation from claim 11. (*Id.* (“The plain language of this limitation is clear—the identifier must ‘uniquely identif[y] information sent . . . from the computer.’”).) B.E.’s argument is predicated on reading out the words “over said computer network” from the claim so that “uniquely identifies information” is associated with “from the computer.” (B.E. Br. at 20 (“The disputed point is not what the “information” is, but whether it is “uniquely identified” as “information sent . . . from the computer . . .”).) B.E.’s argument is inconsistent with this Court’s precedents holding that “claims are interpreted with an eye toward giving effect to all terms in the claim.” *Enzo Biochem Inc. v. Applera Corp.*, 780 F.3d 1149, 1154 (Fed. Cir. 2015). The Board properly found that the plain and ordinary meaning of claim 11 does not support B.E.’s interpretation. (A0014.)

**b. The ’314 specification shows that the unique ID can be a user identifier, supporting the Board’s interpretation of “providing a unique ID”**

The Board’s interpretation of the “providing a unique ID” limitation is also correct when read in the context of the specification. The ’314 specification describes embodiments of the system claimed by the ’314 patent where the claimed unique identifier is a “user ID.” The specification describes a “user ID that is stored along with the demographic data to anonymously identify the user for the purpose of demographically targeting advertising to that user . . . . In the illustrated

embodiment, the user ID is associated with a user login that is required each time the client software application is executed.” (A0125 at 17:29-41 (emphasis added).) Figure 8 of the ’314 patent also illustrates the step of “Assign Unique ID to User.” (A110.)

The embodiments in the written description of the ’314 patent contradict B.E.’s assertion that the “providing a unique ID” limitation excludes user IDs. (B.E. Br. at 18.) Claims should not be interpreted to exclude embodiments disclosed in the specification, so B.E.’s interpretation of claim 11 is incorrect. *On-Line Techs., Inc. v. Bodenseewerk Perkin-Elmer GmbH*, 386 F.3d 1133, 1138 (Fed. Cir. 2004) (rejecting claim construction that excluded an embodiment disclosed in the specification).

**c. Dependent claim 16 recites a unique ID that is a user ID, so independent claim 11 must necessarily cover user IDs**

The doctrine of claim differentiation also supports the Board’s interpretation of claim 11. Claim 16 depends from claim 11 and recites a unique identifier that is associated with a user, not a computer. (A0128 at claim 16.) Because a “[p]arent claim cannot exclude the scope of [a] dependent claim,” the unique identifier of claim 11 must also cover unique user identifiers. *Tomita Techs. USA, LLC v. Nintendo Co.*, 594 F. App’x 657, 664 (Fed. Cir. 2014) (citing 35 U.S.C. § 112(d) to support proposition that an independent claim cannot exclude the scope of its dependent claims).

Claim 16 reads: “providing said computer software which, when run on a computer, requires a user to login to use said software and associates a **different unique identifier with each of a number of valid users.**” (A0128 at claim 16.) By reciting a different unique identifier for each user, claim 16 requires a “unique identifier” that is a unique user ID. *AK Steel Corp. v. Sollac & Ugine*, 344 F.3d 1234, 1242 (Fed. Cir. 2003) (“Under the doctrine of claim differentiation, dependent claims are presumed to be of narrower scope than the independent claims from which they depend.”). Therefore, in independent claim 11, a “unique identifier” must necessarily include user IDs.

The plain language of claim 11, the ’314 specification, and dependent claim 16 all support the Board’s interpretation of the “providing a unique ID” limitation. The Board’s interpretation should therefore be affirmed.

**2. When claim 11 is properly construed, Shaw discloses “providing a unique ID”**

The Board applied the proper construction of claim 11 and found that Shaw’s user ID satisfies claim 11’s “providing a unique ID” limitation. (A0014.)

Shaw discloses a unique e-mail address that is sent from the computer to the server to identify the user so that the user’s information can be processed, stored, and used by the system. For example, Shaw describes that “[a]mong the other connection parameters passed from the client computer 101 to the communication interface 102 is the user name and binding information (e.g., the network login).”

(A0165 at 18:39-42.) Shaw goes on to describe that in order to identify the user on the system “[t]he client system 101 transmits the user’s name and the hash value back to the mail server.” (*Id.* at 18:52-56; *see also* A0157 at 1:45-50, A0162 at 12:6-13, A0155 at Fig. 11; A065-66.) Based on this evidence, the Board found that Shaw’s disclosed use of an e-mail address satisfies the “providing a unique ID” limitation of claim 11. (A0014.)

Substantial evidence supports the Board’s finding that the email address disclosed by Shaw “uniquely identifies information sent over a computer network from the computer to the server” because Shaw expressly teaches that: (1) “On first time use, the client program passes to the server system 104 the selected user name and password”; (2) “[a]mong the other connection parameters passed from the client computer 101 to the communication interface 102 is the user name and binding information (e.g., the network login)”; and (3) “[t]he client system 101 transmits the user’s name and the hash value back to the mail server.” (A0165 at 18:39-42, 18:52-56, A0162 at 12:6-13; A065-66.)

B.E. admits “[t]here is no dispute that the e-mail address in the Shaw system identifies the user.” (B.E. Br. at 18.) B.E. next argues that a unique user ID “is not likely” to perform the function of “uniquely identif[ying] information” sent over the computer network, as required by claim 11. (B.E. Br. at 19-21.) But B.E. presents no evidence to support this assertion. (*Id.*) The Board’s conclusion that



Shaw meets the “providing a unique ID” limitation is supported by substantial evidence and should be affirmed.

**C. The Board correctly found that it would have been obvious to combine Shaw and W3C**

B.E. appeals the Board’s finding that it would have been obvious to combine Shaw and W3C. (B.E. Br. at 22-32.) Motivation to combine is a factual determination reviewed for substantial evidence. *Ariosa Diagnostics v. Verinata Health, Inc.*, No. 2015-1215, 2015 WL 7148267, at \*5 (Fed. Cir. Nov. 16, 2015). Substantial evidence supports the Board’s finding that a person of ordinary skill in the art would have been motivated to combine the teachings of Shaw and W3C. B.E. submitted no credible evidence to rebut Facebook’s showing of a motivation to combine. (A0016.)

**1. B.E. waived its “predictable results” and “analogous art” arguments by not making them in the IPR proceedings**

In the IPR proceedings, Facebook argued that it would have been obvious to combine Shaw and W3C because, among other things, the combination would yield nothing more than predictable results and that the two references disclosed analogous technology. (A0067-68; A0320-22 at ¶¶ 53-56.) B.E. never responded to those arguments. For the first time on appeal, B.E. attacks the Board’s finding that one of ordinary skill in the art would have been motivated to combine Shaw and W3C for these reasons. (B.E. Br. at 22-32.) B.E. waived these arguments by failing

to raise them below. *In re Baxter*, 678 F.3d at 1362 (arguments not presented to the Board are generally waived). The only issue remaining for the Court is whether the Board's finding of motivation to combine Shaw with W3C was based on substantial evidence, which is addressed in section I(C)(3) below.

**2. If considered, B.E.'s "predictable results" and "analogous art" arguments should be rejected**

Even if the Court considers B.E.'s "predictable results" and "analogous art" arguments, neither has merit. B.E.'s "predictable results" argument is legally incorrect and misinterprets the Board's finding of a motivation to combine. And B.E. does not identify any evidence to overturn the Board's finding of fact that Shaw and W3C were "analogous art."

**a. Precedent supports the use of "predictable results" as a factor in determining a motivation to combine**

*KSR International Co. v. Teleflex Inc.*, the Supreme Court's most recent case on obviousness, holds that a combination is "likely to be obvious when it does no more than yield predictable results." 550 U.S. 398, 416 (2007). B.E. quotes *KSR* and acknowledges that predictable results may render an invention obvious. (B.E. Br. at 26.) B.E. nevertheless relies on a law review article as its basis for arguing that "predictable results" is not a permissible justification for a holding of obviousness. (B.E. Br. at 24-26.) This Court is bound to follow the Supreme Court's holding in *KSR*, not a law review article.

What's more, even the article B.E. cites acknowledges that evidence of predictable results can support a holding of obviousness when considered alongside other evidence. The Court need not decide in this case whether evidence of predictable results is alone sufficient to support a holding of obviousness because the Board's finding of predictable results was just one factor in its motivation to combine analysis. (A0015-17.) As discussed in more detail below, the Board's holding of obviousness relied on substantial evidence concerning multiple obviousness factors, including evidence showing that combining Shaw and W3C would result in an improved system and that the two references disclose analogous art. (A0015.)

The other precedents B.E. cites also support the Board's use of predictable results as one of several factors in its overall motivation to combine analysis. For example, *Ecolab, Inc. v. FMC Corp.* reverses a jury finding of non-obviousness because the prior art disclosed "the combination of familiar elements to yield predictable results." 569 F.3d 1335, 1350 (Fed. Cir. 2009). *Oatey Co. v. IPS Corp.*—as B.E. acknowledges—relied on *KSR*'s predictability analysis to conclude that the solution to the problem solved by the patent-in-suit was derived from "a finite number of identified, predictable solutions." 665 F. Supp. 2d 830, 865 (N.D. Ohio 2009). Similarly, *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, holds that predictable results cannot be the sole basis for a holding of obviousness but

acknowledges that it is part of the obviousness analysis. 526 F. Supp. 2d 162, 170-71 (D. Mass. 2007). And *Hynix Semiconductor, Inc. v. Rambus, Inc.* held that there was no requirement to use the “predictable results” framework in jury instructions on obviousness but approved a jury instruction that “implie[d] that predictable results do not suggest nonobviousness.” No. C-00-20905 RMW, 2009 WL 112834, at \*18 (N.D. Cal. Jan. 16, 2009).

**b. Shaw and W3C were analogous art**

The Board’s finding that Shaw and W3C disclose analogous systems is a finding of fact reviewed for substantial evidence. *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000). In its decision, the Board recognized the similarity in purpose and design of the systems disclosed in Shaw and W3C. (A0009-11.) As B.E. notes, “[p]rior art is analogous if it is from the same field of endeavor or if it is reasonably pertinent to the particular problem the inventor is trying to solve.” (B.E. Br. at 30 (citing *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1237 (Fed. Cir. 2010)). Not only did the Board find that combining Shaw and W3C would result in an improved system, a factual finding subject to substantial evidence review, the Board also recognized that Shaw and W3C are from the same field of art. (A0015-16.)

Shaw discloses an electronic mail system that targets advertisements to users based on information about the user using a unique user identifier and a user

profile. (A0015-16.) Shaw is based on client-server architecture. (A0009-10.) W3C is a proposed standard directed to the personalization and targeting of information for customers using demographic information and also is based on a client-server architecture. (A0010-11.)

Along with recognizing these similarities, the Board also considered substantial evidence from a person of ordinary skill in the art showing the analogous nature and interchangeability of the teachings of Shaw and W3C. (A0320-22 at ¶¶ 53-56.) For example, based on its review of Shaw, the Board found that Shaw contemplated an adaptation that would allow the system to provide a series of advertisements to a user in a number of web pages, supporting motivation to look to the disclosures of W3C. (A0017 (citing A0168 at 23:64-24: 2 (“[T]he present invention could be adapted to output a series of advertisements to users in a system that allowed downloading of a number of web pages for off-line browsing.”).)

The Board also acknowledged that the more detailed profile information described in W3C would improve the data set used for targeted advertising in Shaw. (A0016.) The Board also considered Facebook’s evidence that W3C was not the type of standard that required a formal review process, rejecting B.E.’s arguments to the contrary. (*Id.*) Accordingly, the Board’s finding that Shaw and W3C are analogous art was based on substantial evidence and should be affirmed.

**3. Substantial evidence supports the Board’s finding that one of ordinary skill in the art would have combined the teachings of the Shaw and W3C**

This Court reviews the Board’s determination that a person of ordinary skill in the art would have combined Shaw and W3C for substantial evidence. *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073-74 (Fed. Cir. 2015) (affirming holding of obviousness and applying substantial evidence standard). Substantial evidence supports the Board’s holding that a person of ordinary skill in the art would have combined Shaw and W3C, so its final decision should be affirmed.

Considering the prior art systems described in the record, the Board found that disclosures in Shaw and W3C support its finding that a person of ordinary skill in the art would have combined the teachings of the references. (A0009-11, 15-17.) The Board, for example, found that Shaw contemplated an adaptation that would allow the system to provide advertisements to users in website pages. (A0017 (citing A0168 at 23:64-24:2).) In Shaw’s own words, “the present invention could be adapted to output a series of advertisements to users in a system that allowed downloading of a number of web pages for off-line browsing.” (A0168 at 23:64-24:2.) Upon reading Shaw, a person of ordinary skill would have been motivated to look to the disclosures of W3C to improve the operation of Shaw’s system by making them available on web pages. (*Id.*)

The Board also found that the more detailed profile information described in W3C would improve the data set used for targeted advertising in Shaw. (A0016.) The Board also considered Facebook's evidence showing that the W3C submission was not the type of standard that required a formal review process and that it would have been considered by a person of ordinary skill in the art regardless of whether it was formally adopted. (*Id.*)

The Board also considered evidence submitted by the parties in addition to the disclosures in the prior art references themselves. For example, the Board relied on the expert and non-party witness declarations submitted by Facebook. (A0015-17) The Board cited the declaration of Robert Sherwood, a person of ordinary skill in the art. (A0015.) Mr. Sherwood's declaration provides ample evidence to support the Board's conclusion that a person of ordinary skill in the art would have combined the teachings of Shaw with W3C. (A0999-A1276.)

The Sherwood Declaration states that a person of ordinary skill in the art would have combined Shaw with W3C for at least the following reasons: (1) to ensure future interoperability with other targeted advertising systems; (2) because the W3C proposal was submitted by Microsoft, an industry leader, it would have been viewed as an indicator of best practices in targeted advertising; (3) because the methods disclosed in Shaw and W3C were known, interchangeable alternatives for identifying a unique user; and (4) because combining W3C with Shaw resulted

in an improved system by including more information in the user profile disclosed in Shaw, such as clickstream data, that enabled more effective targeting of advertisements. (A320-22 at ¶¶ 53-56.) Facebook also submitted a Microsoft press release showing that the technology described in W3C was incorporated in a platform that received “broad industry support” prior to the ’314 application. (A1399.)

In formulating his expert opinions, Mr. Sherwood relied on more than 40 years of experience in relevant industries, the prior art, numerous references evincing the state of the art, and the Affidavit of Ralph Swick, the Chief Operating Officer of the W3C consortium. (A298-306 at ¶¶ 1-11, 13, 15-16, A320-22 at ¶¶ 53-56; A0939-41.) The Sherwood Declaration and its supporting exhibits provided the Board substantial evidence to support the finding that a person of ordinary skill in the art would have combined Shaw with W3C, and the Board specifically cited the Sherwood Declaration in its Decision. (A0015 (“Mr. Robert J. Sherwood’s Declaration supports Petitioner’s argument that the combination of Shaw and W3C would have been obvious to a person of ordinary skill and that such a combination would render nothing more than predictable results.”).)

Mr. Sherwood’s deposition testimony also provides evidence supporting the Board’s conclusion regarding motivation to combine. (A2533-A2807.) Mr. Sherwood’s testimony was based on his review of the record and his experience



working with web-based targeted advertising during the 1990s. (A298-306.) For example, Mr. Sherwood testified that a person of ordinary skill in the art would combine the teachings of the Shaw and W3C references because the clickstream data described in the W3C reference would provide more information to use in targeting ads in Shaw's system:

[T]he better I can target my ads, the better. If I can get clickstream data, if I can get demographic data, if I can find out what you're doing, how often you're clicking on the e-mail, how you're connecting and disconnecting, what you do while you're there, how long you spend there, all those are things that go into the clickstream, because the ultimate goal here is that -- what the advertisers are driving to and the people that sell ads is that the more targeted the ad, the more I can charge.

(A2722 at 20-A2723 at 5.) Mr. Sherwood went on to describe additional motivation for combining the teachings of Shaw and W3C:

[T]here is a reason to combine them, because if you're designing a system, for example, where you don't have e-mail software, then you're going to have to look for another way of identification. A unique ID; hashtag, numerical ID, alphanumeric, no matter how you actually put that together, is easier, might be better in some cases. E-mail software might be a little more restrictive. People could change their e-mail addresses, for example.

(A2732 at 2-11.) The Board's finding that a person of ordinary skill in the art would have been motivated to combine Shaw and W3C is supported by substantial evidence and should be affirmed.

**4. B.E. produced no evidence to rebut Facebook's showing that Shaw and W3C would have been obvious to combine**

The Board determined that B.E. presented no persuasive evidence rebutting Facebook's showing of motivation to combine. (A0016-17.) Once a prima facie

showing of motivation to combine is made, the burden of production shifts to the patent holder. *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1327 (Fed. Cir. 2008) (holding that once the challenger of a patent's validity makes a prima facie showing of invalidity, the patentee has the burden of producing evidence that the prior art does not render the patent invalid). B.E. failed to satisfy its burden of production.

B.E.'s rebuttal to Facebook's evidence showing motivation to combine the teachings of Shaw and W3C consisted of fewer than 100 words of argument. The only evidence B.E. cited to support its arguments were two conclusory paragraphs in Neal Goldstein's Declaration. (A0983; A0996 at ¶¶ 23-24.) The Board determined that the Goldstein Declaration was not credible or persuasive. (A0016-17.)

In paragraph 23, the first relevant paragraph of the Goldstein Declaration, Mr. Goldstein opined that because Shaw is a mostly disconnected system, the W3C proposal would not be useful because it relates to the tracking of individuals across multiple websites. (A0996.) The Board found that paragraph 23 of Mr. Goldstein's declaration lacked factual support, stating "[p]atent Owner's argument and Mr. Neal Goldstein's testimony, merely allege that the 'W3C profile is of no use to the Shaw system' without providing a factual basis to support this conclusion." (A0016.)

The Board also found that Shaw contradicted Mr. Goldstein's declaration: "[i]n light of the Shaw system contemplating the adaptation of the Shaw system to provide a series of advertisements to a user in a number of web pages, we are not persuaded by Patent Owner that a person of ordinary skill in the art would not have combined Shaw with W3C." (A0017 (citing A0168 at 23:64 – 24:2).)

Paragraph 24 of the Goldstein Declaration stated that "a person of ordinary skill in the art would find it imprudent to adopt such a schema before it was officially approved." (A0996.) The Board did not find paragraph 24 of the Goldstein Declaration credible either. (A0017 ("As pointed out by Petitioner, Patent Owner has not provided persuasive evidence that the W3C standard requires approval") (citing A01374-75).)

After reviewing the evidence, the Board found that W3C was not the type of submission that required formal approval before a person of ordinary skill in the art would have looked to it for ways to improve Shaw. (*Id.*) For example, W3C did not require formal approval because it was "a NOTE made available by the World Wide Web Consortium for discussion only. This indicates no endorsement of its content, nor that the Consortium has, is, or will be allocating any resources to the issues addressed by the NOTE." (A0178 at "Status of this Document".) This shows, and the Board agreed, that no formal adoption or approval of W3C was contemplated, directly contradicting paragraph 24 of Mr. Goldstein's declaration.

(A0996.) In addition, the W3C proposal received broad industry support without any formal approval. In a July 1, 1997, press release cited by Facebook, Microsoft announced that the technology described in the W3C proposal was part of a platform that “gained widespread support from more than 100 of the world’s leading companies.” (A1399.) In other words, the record demonstrates that a large number of technology companies embraced the W3C proposal notwithstanding the status of its formal approval status as a standard. (A0017; A01374-76.) This evidence supports the Board’s proper discrediting of Mr. Goldstein’s opinions and that the Board appropriately rejected B.E.’s arguments based on Mr. Goldstein’s opinions.

**II. Substantial evidence supports the Board’s conclusion that the combined teachings of Angles and Shaw render the ’314 patent obvious**

Facebook presented substantial evidence on which the Board relied to support its determination that the combined teachings of Angles and Shaw render obvious the appealed claims of the ’314 patent. *Belden*, 805 F.3d at 1074-74 (affirming holding of obviousness after concluding that substantial evidence supported the Board’s decision). The ultimate question of obviousness is reviewed de novo, but underlying factual determinations are reviewed for substantial evidence. *In re Gartside*, 203 F.3d at 1316.

B.E. does not identify any evidence to support its argument that it would not have been obvious for a person of ordinary skill in the art to combine the teachings

of Angles and Shaw. Once a challenger presents a prima facie showing that patent claims are invalid, the patentee has the burden of presenting evidence to rebut the evidence. *Tech. Licensing*, 545 F.3d at 1327-28. B.E. failed to carry its burden of production. It did not submit a single exhibit with its Patent Owner Response other than the declaration of its expert and a transcript of the deposition of Facebook's expert. (A2500.)

**A. B.E. does not dispute that the combination of Angles and Shaw discloses every limitation of claim 11**

B.E. did not dispute that every element of claim 11 was disclosed by the combined teachings of Angles and Shaw. (A0022.)

**B. A person of ordinary skill in the art would have been motivated to combine the teachings of Angles and Shaw**

The Board agreed with Facebook's evidence and analysis showing that a person of ordinary skill in the art would have been motivated to combine the teachings of Angles and Shaw. (A0019-23.) Facebook presented substantial evidence that Angles and Shaw are analogous art, that it would have been obvious to combine the teachings of Angles and Shaw to save costs and increase efficiency, and that the combined teachings of Angles and Shaw would have yielded nothing more than predictable results. The Board agreed, and its holding of obviousness is supported by substantial evidence.

**1. Angles does not require a continuous Internet connection, contrary to B.E.'s characterization of the system**

B.E.'s rebuttal of the obviousness of combining the teachings of Angles and Shaw depends on incorrectly characterizing Angles as teaching a system that requires a continuous Internet connection. B.E. cites no evidence and offers no analysis for its argument. (B.E. Br. at 33-34.) B.E.'s assertion is incorrect. Angles' teachings are not limited to systems with a continuous Internet connection.

Facebook presented evidence from both Angles and Shaw describing the state of Internet connections in the mid-1990s that indicated that consumers rarely had access to continuous Internet connections. (A1622-24, citing A0924 at 12:2-3; A0165-66 at 18:63-19:43 (both referencing locally stored information); *see also* A1701 at 11:50-12:11 (describing local storage that could be used to store ads allowing for faster retrieval over slow network connections).) Facebook also presented evidence through its expert, Mr. Sherwood. (*Id.*, A1776-77 at ¶¶ 59-60.) Mr. Sherwood testified that the majority of home Internet users had dial-up connections that used home voice telephone lines to send and receive data. (*Id.* ¶¶ 33-35.) Staying online continuously was not economically feasible for many consumers because of service providers' charges, nor was it practical because the home telephone line was in use anytime someone accessed the Internet—which precluded use of the telephone line for voice calls. (*Id.* ¶ 33.)

Facebook also noted that Angles teaches use of its system with a dial-up connection such as “American [sic] On-line, the Microsoft Network, Prodigy, Compuserve, and Network Intensive.” (A0923 at 9:39-41; *see also* A2817.) Mr. Sherwood testified that these services were designed for users who did not have a continuous network connection. (A1766-67 at ¶¶ 32-34; A2744 at 14-A2745 at 18.) Based on Angles’ disclosure, Mr. Sherwood opined that Angles teaches targeting advertising to computer users using an intermittently online system. (*Id.*; A2907 at ¶ 36.)

B.E. did not offer any evidence to rebut Facebook’s evidence of the state of the art, Angles’ express teachings, or Mr. Sherwood’s opinions. (B.E. Br. at 33.) Its quote from its expert’s declaration— “[o]ne of ordinary skill in the art would not look to a non-web based ‘mostly disconnected’ (Shaw 3:12) batch system for ideas to enhance a continuously online web based system”—was itself a conclusory assertion with no evidentiary support that was entitled to no weight. (*Id.*, citing A2526 at ¶ 27.) “Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.” 37 C.F.R. § 42.65(a); *10x Genomics, Inc. v. Univ. of Chicago*, No. IPR2015-01158, slip op. at 19 (PTAB Nov. 16, 2015) (Paper 14) (discrediting “unexplained opinion” of expert).

Based on Facebook's ample evidence and B.E.'s lack of any contradictory evidence, the Board concluded that the teachings of Angles and Shaw were compatible and that "a person with ordinary skill in the art would have been motivated to combine the feature of periodically requesting additional advertisement content from Shaw with Angles." (A0023.)

**2. B.E. presented no evidence to rebut Facebook's evidence and analysis that Angles and Shaw were analogous art**

Facebook presented evidence that Angles and Shaw "both disclose systems and methods for providing targeted advertising to users over the Internet using client-server architectures." (A1622-24, A1625-27, A1635-37.) Facebook's expert, Mr. Sherwood, explained why Angles and Shaw were analogous. Both systems were client-server network systems, a configuration that was well known and widely used. (A1762 at ¶ 22; A1699 at 7:48-52; A0163 at 14:37-47.) Mr. Sherwood noted that the Internet in the 1990s was evolving quickly, and it was common for those of ordinary skill in the art to "borrow or incorporate features or capabilities from other web sites or systems on the Internet." (A1775 at ¶ 55.) He also cited numerous sources explaining the use of targeted advertising in the 1990s and the ubiquity of using the Internet to deliver targeted advertising. (A1763-66 at ¶¶ 25-31.) Facebook's petition and Mr. Sherwood's declaration strongly support a finding that Angles and Shaw were analogous art. *Wyers*, 616 F.3d at 1237-38 (determining that the prior art patent for a trailer-towing device was analogous to the asserted patents, which disclosed locks that secured trailers to towing vehicles).



B.E. offers mainly attorney argument to support its assertion that Angles and Shaw were not analogous art. (B.E. Br. at 32-33.) B.E.’s expert, Neal Goldstein, provides no analysis and cites no evidence to support his opinion that Angles and Shaw were not analogous. (A2525-26 at ¶ 26.) He even acknowledged that the two references both “disclose systems for delivering targeted advertising.” (*Id.*)

Furthermore, the precedents B.E. cites are distinguishable from the facts of this case. The prior art references in *Circuit Check Inc. v. QXQ Inc.*, were from completely different fields—engraved signage, rock carving, and machining. 795 F.3d 1331, 1333-34 (Fed. Cir. 2015). This Court in *Circuit Check* affirmed a jury’s finding of non-obviousness because the patentee had presented substantial evidence that “an inventor would not have considered the disputed prior art.” *Id.* at 1334, 1336 (citing testimony presented at trial). Here, B.E. presented no evidence to rebut Facebook’s evidence that Angles and Shaw are analogous art directed at supplying targeted advertising using the Internet.

**3. Facebook identified the advantages of reduced cost and increased speed as motivations for combining Angles and Shaw, which B.E. does not dispute**

Before the Board, B.E. never addressed or rebutted Facebook’s evidence that it would have been obvious to combine the teachings of Angles and Shaw to reduce the cost associated with dial-up charges and to increase the speed with which advertisements were downloaded to users’ computers. Facebook argued that

Shaw provides “an express motivation” to combine its teachings with Angles, by explaining that “communications costs and hardware requirements are substantially lower than for ‘fully-connected’ on-line service.” (A1626, quoting Shaw, A1709-40 at 4:60-66 and 23:56-59.) Mr. Sherwood confirmed that a system like Shaw that operates in a “batch” mode would reduce operating costs. (A1779-80 at ¶ 66.) Keeping costs low would have been important to the mid-1990s Internet user, who likely paid for Internet access by the minute. (A1767.)

Facebook also presented evidence that combining the teachings of Angles and Shaw would result in a system that displayed ads faster. (A1626-27; A2820-21; A1767 at ¶¶ 33-34, A1779-80 at ¶¶ 65-66.) Mr. Sherwood testified that using a 56k modem, common in the mid-1990s, a “3 megabyte 24-bit file would take probably 20 minutes to get on your screen” and that increasing ad download speed “would be a powerful motivation” to combine Angles and Shaw. (A2748 at 1-5.)

B.E. offers only attorney argument to rebut Facebook’s evidence of cost savings and increased speed that would result from combining the teachings of Angles and Shaw. (B.E. Br. at 34-38.) The Board correctly relied on the substantial evidence Facebook offered to prove that combining the teachings of Angles and Shaw would result in cost savings and faster advertisement downloads. (A0021-22.)

**4. B.E. waived its legally incorrect “predictable results” argument by not presenting it below**

In its Patent Owner Response, B.E. did not address Facebook’s argument that combining Angles and Shaw would have create predictable results, waiving the argument. (A2496-A2515.) The Federal Circuit “generally do[es] not consider arguments that the applicant failed to present to the Board.” *In re Baxter*, 678 F.3d at 1362.

Even if the argument was not waived, B.E.’s assertions are legally wrong and unsupported by case law, as described above in Section I(C)(2)(a).

At best, the authority that B.E.’s relies on suggests that “predictable results” alone may not be sufficient to support a finding that it would be obvious to combine prior art references. But the Court need not decide that issue in this appeal because the Board based its finding that a person of ordinary skill would have been motivated to combine Angles and Shaw on multiple rationales—as B.E. itself acknowledges. (B.E. Br. at 38; A0020-23.)

**III. The Board properly denied B.E.’s motion to amend because B.E. failed to provide claim constructions and written description support for its proposed substitute claims**

The Board denied B.E.’s contingent motion to amend because B.E. failed to meet its burden to show that the proposed claims were patentable. (A0026-28; 37 C.F.R. § 42.2(c), 37 C.F.R. § 42.121(b).) Specifically, B.E. failed to comply with the requirement that the patent owner must address claim construction for new

claim terms and show how its original application provided written description support for each substitute claim. (A0026-27.) *Microsoft*, 789 F.3d at 1305 (affirming Board’s denial of motion to amend based, in part, on patent owner’s failure to provide construction for newly added claim terms); *Prolitec, Inc. v. ScentAir Techs., Inc.*, No. 2015-1020, slip op. at 13-15 (Fed. Cir. Dec. 4, 2015) (re-affirming that the patentee bears the burden to show the patentability of amended claims).

In addition to the grounds the Board cited for denying B.E.’s motion to amend, this Court can affirm the Board’s decision on “any ground supported by the record, whether or not the appellant raised the argument.” *Rexnord Indus., LLC v. Kappos*, 705 F.3d 1347, 1356 (Fed. Cir. 2013). Facebook raised several additional grounds: (1) the proposed claims are obvious in light of the prior art produced in Facebook’s opposition to B.E.’s motion to amend, (2) the proposed claims are not patent-eligible subject matter under 35 U.S.C. § 101, and (3) the proposed claims are indefinite under 35 U.S.C. § 112(b). Each of these grounds is available as an alternative for affirming the Board’s Final Decision.

The Board’s rejection of B.E.’s motion to amend is reviewed for abuse of discretion. *Proxycorr*, 789 F.3d at 1306; *In re Sullivan*, 362 F.3d 1324, 1326 (Fed. Cir. 2004). The Board’s interpretation of PTO regulations will not be overturned

unless that interpretation is “plainly erroneous or inconsistent with the regulation.”

*Id.*

**A. It was not an abuse of discretion for the Board to require B.E. to explain how new claim terms should be construed**

It is the moving party’s burden to show that a proposed substitute claim is patentable. 37 CFR 42.2(c); *Idle Free Sys., Inc. v. Bergstrom, Inc.*, Case IPR 2012-00027, slip op. at 7 (PTAB June 11, 2013) (Paper 26) (informative). As part of meeting its burden to show patentability, the party seeking amendment must identify how the proposed claims are to be construed, particularly where the proposed amended claims use new claim terms. *Id.*

B.E. failed to address the issue of claim construction in its motion to amend despite introducing a new claim term to the “selecting” limitation, “real-time” (A1286.) The addition of “real-time” was one of the key distinctions that B.E. identified between the amended claim and the prior art, so the meaning of “real-time” was important to determining the proposed claim’s patentability. (A1293.)

The limitation in question of the proposed amended claim is: “**selecting** advertising for **transfer** to the computer in accordance with **real-time** and other computer usage information. . . .” (A0025 (emphasis added).) Without any discussion of the meaning of the term “real-time”, the proposed amended claim is ambiguous. It is not clear whether the “selecting” or “transfer” (or both) of advertising content is done in accordance with the “real-time and other computer

usage information.” (A0026.) B.E. also failed to address what amount of time would satisfy “real-time” in the “selecting” limitation. (A1416-15.)

After omitting any discussion concerning how new terms in its proposed amended claims should be construed, B.E. argues for the first time on appeal that “real-time” requires no construction because the term is “readily understandable.” (B.E. Br. at 40.) But it was B.E.’s burden to address how new claim terms should be construed in its motion to amend and B.E. chose not to do so. The Board determined that by failing to address the issue of claim construction, B.E. failed to show that the proposed claims were patentable. (A0026-28.) The Board decision was well within its discretion to do so. *Proxyconn*, 789 F.3d at 1305.

**B. B.E. failed to meet its burden to show that the proposed amended claims have adequate written description support**

The patentee has the burden to show that proposed claims are adequately supported by the written description of the patent application as originally filed. 37 C.F.R. § 42.121(b)(1); *U.S. Dep’t of Homeland Sec. v. Golden*, IPR2014-00714, slip op. at 14 (PTAB Oct. 1, 2015) (Paper 35). B.E. failed to meet this burden. *Greene’s Energy Group, LLC v. Oil States Energy Servs., LLC*, No. IPR2014-00216, 2015 WL 2089371, at \*14 (PTAB May 1, 2015) (“A string citation does not explain how the original disclosure of the application relied upon reasonably conveys to a person the features intended to be encompassed by the proposed substitute claims.”) It provided one short paragraph of citations to the original

application for the '314 patent without any explanation how the citations supported the proposed amended claims. (A1287, citing A1295-1350.) The citations B.E. provided do not reasonably convey that B.E. possessed the subject matter in the amended claims. *Ariad Pharms, Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (*en banc*). Explanation linking the original application to the proposed amended claims was required and B.E. failed to provide any. B.E. therefore failed to meet its burden. “[A] mere citation to the original disclosure without any explanation as to why a person of ordinary skill in the art would have recognized that the inventor possessed the claimed subject matter as a whole may be . . . inadequate.” *Nichia Corp. v. Emcore Corp.*, IPR2012-00005, slip op. at 4 (PTAB June 3, 2013) (Paper 27). Here, B.E.’s cites are insufficient. The Board did not abuse its discretion in concluding that B.E. did not satisfy its burden of proof and denying the motion to amend. (A0028.)

**1. B.E.’s citations do not provide support for “selecting advertising content for transfer to the computer in accordance with real-time”**

The Board found that it was unclear in which of B.E.’s cited passages there was support for the limitation “selecting advertising content for transfer to the computer in accordance with real-time.” (*Id.*) The phrase appears in the limitation “selecting advertising content for transfer to the computer in accordance with real-time and other computer usage information and demographic information associated with said unique identifier” in B.E. substitute claim 23. (A1283.)

Of the citations listed by B.E. only four address the term “real-time.” The application refers to “two-tiered, realtime targeting of advertising” (A1295 at 21-22); “real time targeting of advertising based upon user actions” (A1300 at 6-7); “real time, reactively-targeted advertising” (A1305 at 10-13); and “reactive targeting . . . handled in real time” (A1323 at 11-28.) These citations refer to real-time **targeting** of advertising. B.E.’s proposed limitation contained the phrase “. . . in accordance with **real-time and other computer usage information and demographic information. . .**” B.E.’s string citations to portions of its original application which refer to “real time **targeting**” do not explain how to select advertising “in accordance with real-time and other computer usage information and demographic information.” B.E.’s citations do not reasonably convey to a person of ordinary skill in the art that B.E. actually possessed the claimed invention. B.E. thus failed to carry its burden of identifying adequate written description support for its proposed amended claim. *Ariad*, 598 F.3d at 1351.

Finally, *International Flavors & Fragrances, Inc. v. United States*, on which B.E. relies, is distinguishable from this case. No. IPR2013-00124, slip op. at 10-11 (PTAB May 20, 2014) (Paper 12). The patentee in *International Flavors* identified paragraphs that contained specific support for each one of its amended claims. *Id.* at \*4. Here, B.E.’s cited original disclosure contained no such specifics. For this additional reason, the Board was well within its discretion in denying B.E.’s



motion to amend for lack of written description support, notwithstanding the allowance of amendment in *International Flavors*.

**C. B.E. failed to meet its burden to show that the proposed amended claims are not obvious in light of the prior art produced by Facebook**

B.E. also failed to meet its burden to show patentability over the prior art. (A1401-A1418; A2888-A2909.)

The proposed amended claims add two limitations: (1) a limitation that computer usage information be collected from “user’s interactions with ... at least one other program,” and (2) a limitation that advertising is selected using: “real-time and other computer usage information.” (A1282-83.) In opposition to B.E.’s motion to amend, Facebook introduced two additional prior art references, U.S. Patent No. 7,225,142 to Apte and U.S. Patent No. 6,490,584 to Barrett. As shown below and in Facebook’s opposition, B.E.’s proposed amended claims are obvious in light of the teachings of Apte or Barrett combined with Shaw and W3C or Angles and Shaw.

First, Apte discloses a targeted advertising system that collects information about a user’s interactions with the browser and the advertising software, meeting B.E.’s first proposed amended limitation. (A0355 at 9:2-6 (“The content control window 47 includes a list of topics .... When one or more topics are selected by the user, they are highlighted, and advertisements pertinent to the highlighted

topics appear in the display area.”); A0355 at 9:14-17 (“The present invention advantageously provides the capability of selecting advertisements to show to the user based upon the content of the pages viewed by the user in the browser area.”); A0355 at 9:58-65 (“In one embodiment, a file is maintained comprising the name of a user, a list of electronic coupons clipped by that user, and the date on which each electronic coupon is clipped, and whether or not each coupon has been redeemed. This information is used to target advertisements to the user . . .”).)

Apte also discloses the second proposed limitation, selecting advertising using “real-time and other computer usage information.” Apte teaches that “the present invention can make choices about which advertisements to display to the user that are responsive to the user’s current viewing habits.” (A0353 at 6:60–64.) Apte emphasizes the benefit of this type of real-time information: “[t]his dynamic targeting capability is in part due to the capability of the present invention to operate with a browser such that the progression of advertisements in no way interferes with the independent operation of the browser.” (*Id.*, 6:64-7:8 (emphasis added); A1459-60 at ¶¶ 10, 12, A1465-66 at ¶ 21.)

Barrett also meets the new limitations in B.E.’s proposed amendments to claim 11. Barrett teaches collecting information about a user’s interactions with the browser and the advertising software. For example, Barret states: “building and maintaining a reliable, useful user model requires data from numerous sources.

What the user is currently browsing, for instance, or topics which he has recently written about or read (in a document, an e-mail, or a new posting), applications he uses, as well as keyboard and mouse activity are all valuable sources of user model information.” (A1431 at 2:45-54.)

Barrett uses the collected information to select digital content and deliver it to the user in real-time, meeting the second proposed amendment. For example, Barret describes a system that determines “what information is relevant to a user’s changing interests, locating such information, and pushing the information to a client triggered on the changes in user interests.” (A1432 at 3:1-5; A2903-04 at ¶¶ 28-30.)

Facebook submitted a second Sherwood Declaration supporting its argument that it would have been obvious to combine Apte or Barrett with the combined teachings of, Shaw and W3C or Angles and Shaw. (A1409, A1412-13.)

As shown in Facebook’s opposition to B.E.’s motion to amend, it would have been obvious to a person of ordinary skill in the art to incorporate the teachings of Apte with Shaw and W3C or Angles and Shaw because it would have resulted in an improved system. For example, it was known at the relevant time that collecting information from multiple computer programs enabled more successful targeting. (A2898-A2902 at ¶¶ 20, 24.) It would also have been obvious to select the advertisements of Shaw and Angles using “real-time” computer usage

information as taught by Apte, because real-time data would allow for improved targeting of advertisements. (A0353 at 6:64-7:1; A0163 at 13:48-54; A0928 at 20:2-7; A2892-A2907 at ¶¶ 9, 10, 12, 14-22, 33, 34-36.)

It also would have been obvious to combine Barrett with Shaw and W3C or Angles and Shaw. A person of ordinary skill in the art would have recognized that collecting data from numerous sources would improve the targeted advertising systems, and that the references were analogous. (A2902-03 at ¶ 27 (“Barrett expressly recognizes that having more information about user activity provides valuable insights into the user’s current interests, and enables the system to select more relevant content. These techniques have obvious applicability to the targeted advertising systems disclosed in Angles and Shaw.”) (A1431 at 2:45-54)); *see also* A2904-08 at ¶¶ 30-38.)

By failing to present evidence to rebut Facebook’s showing that each of the proposed claims was unpatentably obvious, B.E. failed to meet its burden of proving patentability. (*Compare* A1404-13 with A1477-78; 37 CFR 42.2(c).) Because B.E. did not carry its burden to prove that the proposed amended claims are not obvious in light of Apte or Barrett in combination with the instituted prior art, the Board’s denial should be affirmed.

**D. B.E.’s proposed amended claims are not patentable under 35 U.S.C. § 101**

The patent owner’s proposed amended claims also fail to claim patent eligible subject matter under 35 U.S.C. § 101 because they describe the abstract idea of “providing demographically targeted advertising to a computer user.” (B.E. Br. at 5.)

In *Alice Corp. Pty. Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014), the Supreme Court clarified that the test for patent eligibility articulated in *Mayo Collaborative Services v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012), is the standard for determining whether patent claims are directed to patent-ineligible concepts. “First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Alice*, 134 S. Ct. at 2355. Second, if the claim is drawn to an abstract idea, “we consider the elements of each claim both individually and as an ordered combination to determine whether the additional elements transform the nature of the claim into a patent-eligible application.” *Id.* When a claim is drawn to an abstract idea, “merely requiring generic computer implementation fails to transform that abstract idea into a patent-eligible invention.” *Id.* at 2352.

B.E.’s substitute claims are ineligible under § 101 because they are directed to the abstract idea of improving advertising results by showing people advertising for products and services they are interested in purchasing. It is a “fundamental”

concept, “long prevalent in our system of commerce” that advertising works best when advertisements are tailored to the audience. (*Id.* at 2356; A1763-62 at ¶¶ 24–25.) The proposed substitute claims amount to nothing more than a “mere instruction to implement [that] abstract idea on a computer.” *Alice*, 134 S. Ct. at 2358; *see also Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 712, 714-15 (Fed. Cir. 2014) (finding claim covering method for providing copyrighted material in exchange for viewing an ad invalid as not patent-eligible under § 101). When the generic steps associated with computer implementation are removed from the patent owner’s substitute claims, they recite nothing more than: (1) acquiring demographic information, (2) acquiring additional information about the person’s activities, (3) associating the demographic information with information about the person’s activities, (4) selecting advertising based on the person’s activities or demographics or both, and (5) presenting the advertisement to the user while the activity is ongoing.

For decades, salespeople have practiced this “invention” each time a person walks into a store by noticing a person’s gender and dress and targeting sales in light of those observations, coupled with recognition of the items about which the shopper has expressed interest while in the store. (*See* A1763-62 at ¶¶ 24–25.) The patent owner’s proposed substitute claims merely attempt to cover this process when performed using a computer. *Alice*, 134 S. Ct. at 2358 (computer

implementation cannot impart patent eligibility to an age-old idea). Because B.E.’s proposed substitute claims cover ineligible subject matter under § 101 and preempt age-old forms of advertising, B.E.’s motion to amend should be denied.

**E. B.E.’s amended claims are indefinite under § 112(b)**

The patent owner’s proposed substitute claims are also indefinite under 35 U.S.C. § 112(b).

“[A] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014). Patent claims must “provide objective boundaries for those of skill in the art.” *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014).

The ’314 specification provides no guidance as to what “real-time” means and a person of ordinary skill must guess as to the scope of the claim. Although “real-time” appears five times in the specification, there is *no* guidance as to what “real-time” means and this key term is left open to interpretation.

In one typical example, the ’314 patent mentions “real-time” but offers no explanation of what it means: “the reactive targeting provided by client software application 10 is handled in **real time**, rather than simply as a part of building a set of advertisements for later display to the user. This permits the display of

advertising that is relevant to what the user is doing at any particular time.” (A0124 at 16:25-30 (emphasis added).) Another example provides no clarity on real time’s meaning: “when the user runs the program . . . an advertisement will be displayed that is relevant to that program (such as an advertisement for a stock brokerage. This provides two-tiered **real-time** targeting of advertising—both demographically and reactively. (A0102 at Abstract (emphasis added).)

The references to “real-time” in the ’314 specification leave a person of ordinary skill to guess at what the meaning of real-time is. “Real-time” could mean instantly, or within several seconds, or within several minutes, or during the same session, or possibly some other period of time. (A1416-17.) Without any objective boundaries providing notice to a person of ordinary skill of the scope of the invention, the substitute claims are indefinite. B.E.’s motion to amend should be denied on that basis.

#### **IV. B.E.’s argument regarding the broadest reasonable interpretation standard is irrelevant to this proceeding**

B.E. attempts to reserve the right to challenge the Board’s construction of the terms in this proceeding should the U.S. Supreme Court rule that the broadest reasonable interpretation (BRI) standard no longer applies in *inter partes* review proceedings. (B.E. Br. at 44.) But any argument about the claim construction standard in this proceeding is not available for two reasons. First, B.E. failed to argue how disputed claim terms should be construed under the *Phillips* claim



construction standard. Second, B.E. has not shown how the application of a different claim construction standard would change the outcome in this proceeding.

**A. B.E. did not propose constructions for any disputed claim term using the *Phillips* standard**

B.E. did not propose constructions under the *Phillips* claim construction standard for any disputed claim term. (A0008.) As the Board noted, B.E.’s argument that BRI should not apply here is “tantamount to a request for an advisory opinion.” (A0017.) B.E. waived its challenge to the claim constructions here by not providing different constructions below. *See Digital-Vending Servs. Int’l, LLC v. Univ. of Phoenix, Inc.*, 672 F.3d 1270, 1273 (Fed. Cir. 2012) (holding that a party could not propose new claim constructions for the first time on appeal).

**B. B.E. did not show how the application of the *Phillips* claim construction standard would change the outcome of the IPRs**

Beyond failing to provide alternate constructions for any claim term under the *Phillips* standard, B.E. also did not address how an application of the *Phillips* standard would change the outcome of this proceeding and result in a finding of patentability. (A0983-84 and A2512-13.)

**C. A change in the Board’s claim construction standard would not change the outcome of this appeal**

A petition for certiorari has been filed<sup>1</sup> seeking Supreme Court review of *In re Cuozzo Speed Technologies, LLC*. 793 F.3d 1268, 1278 (Fed. Cir. 2015). But

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<sup>1</sup> *Cuozzo Speed Techs., LLC v. Lee*, No. 15-446 (U.S. Oct. 6, 2015.)

even if the Supreme Court decides to hear the case and rules that the Board cannot use the BRI standard, the outcome of this appeal will not change. B.E.'s waivers below prevent it from benefiting even if the Supreme Court changes the claim construction standard applied by the Board.

### CONCLUSION

For the foregoing reasons, the Court should affirm the Board's final written decision holding claims 11, 12, 13, 15, 18, and 20 of the '314 patent as unpatentable and affirm the Board's denial of B.E.'s motion to amend.

Dated: December 9, 2015

Respectfully submitted,

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**United States Court of Appeals  
for the Federal Circuit**

*B.E. Technology, L.L.C. v. Facebook, Inc.*, 2015-1829, 1879

**CERTIFICATE OF SERVICE**

I, Robyn Cocho, being duly sworn according to law and being over the age of 18, upon my oath depose and say that:

Counsel Press was retained by COOLEY LLP, counsel for Appellee, Facebook, Inc. to print this document. I am an employee of Counsel Press.

On **December 9, 2015** counsel has authorized me to electronically file the foregoing corrected **Responsive Brief of Appellees Facebook, Inc. and Google Inc.** with the Clerk of Court using the CM/ECF System, which will serve via e-mail notice of such filing to all counsel registered as CM/ECF users, including any of the following:

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The brief was originally filed and served on December 8, 2015. Upon acceptance by the Court of the e-filed document, six paper copies of the corrected brief will be filed with the Court within the time provided in the Court's rules.

December 9, 2015

/s/ Robyn Cocho  
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